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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/785,051	02/15/2001	Michael A. Robinson	10004159-1	4769

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EXAMINER

PAYNE, DAVID C

ART UNIT PAPER NUMBER

2633

DATE MAILED: 11/13/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/785,051

Applicant(s)

ROBINSON, MICHAEL A.

Examiner

David C. Payne

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 15 February 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because the components in Figure 2A are not widely recognized symbols and require a suitable legend. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buescher et al. US006396351B1 (Buescher) in view of North US006118829A (North).

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Regarding claim 1,

Buescher disclosed A fiber optic receiver (Figure 2), comprising: an opto-electronic transducer (photodiode not shown at terminal (34), e.g., col./line: 3/1-10); configured to generate an electrical data signal in response to a received optical data signal; an adjustable response preamplifier (32) circuit coupled to the opto-electronic transducer and operable to amplify an electrical data signal generated by the opto-electronic transducer;

Buescher does not disclose a mode selection circuit coupled to an output of the preamplifier circuit and configured to transmit a mode control signal to the preamplifier circuit in response to a received control signal. However, Buescher does disclose the need for the preamplifier to operate over varying bandwidths (e.g., col./line: 2/40-55). North disclosed a mode selection circuit that operates to adjust the bandwidth response and sensitivity of a communications receiver (e.g., col./line: 4/40-55). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the North mode selection switch in the Buescher preamplifier circuit to limit bandwidth response to only that required to obtain good pulse fidelity so that less of the background noise spectrum is amplified and the input sensitivity can be kept correspondingly lower as disclosed by North (see col./line: 3/25-31).

Re claim 2,

the modified invention of Buescher and North disclosed the mode selection circuit

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is configured to transmit the mode control signal to the preamplifier circuit in response to a received data rate control signal (North e.g., col./line: 4/30-35).

Re claim 3,

the modified invention of Buescher and North disclosed the mode selection circuit is configured to transmit the mode control signal to the preamplifier circuit in response to a received power mode control signal (North e.g., col./line: 11/1-20).

Re claim 4,

the modified invention of Buescher and North wherein the mode selection circuit is configured to modulate the mode control signal onto a common line coupled between the preamplifier circuit and the post-amplifier circuit (North Figure 4 (474)).

Re claims 5-7, 9, 11

the modified invention of Buescher and North disclosed wherein the mode selection circuit is configured to modulate the mode control signal onto the common line as a single pulse, or multiple pulse pattern or time-varying signal (North, e.g., col./line: 2/60-67, 9/20-25, Figure 11).

Re claim 8,

the modified invention of Buescher and North disclosed wherein the preamplifier

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circuit comprises a mode detection circuit configured to generate a response control signal for adjusting the response of the preamplifier circuit based upon the mode control signal transmitted by the mode selection circuit (North, Figure 2 (240), e.g., col./line: 5/53-65).

Re claim 10,

the modified invention of Buescher and North disclosed wherein the mode detection circuit is configured to detect the one or more mode control signal pulses based upon a comparison of a common line voltage with a reference voltage (North, e.g., col./line: 8/50-60).

Re claim 12,

the modified invention of Buescher and North disclosed wherein the mode detection circuit comprises a frequency detector (North, e.g., col./line: 6/1-10).

Re claim 13,

the modified invention of Buescher and North disclosed wherein the preamplifier circuit is configured to select one of multiple sets of operating parameters based upon the mode control signal transmitted by the mode selection circuit (e.g., bandwidth or voltage, col./line: 5/30-50, 6/1-10).

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Re claim 14,

the modified invention of Buescher and North disclosed wherein the preamplifier circuit is configured to adjust one or more bandwidth response parameters in response to a bandwidth mode control signal transmitted by the mode selection circuit (North, e.g., bandwidth response or gain, col./line: 4/30-35, or Vout).

Re claim 15,

the modified invention of Buescher and North disclosed wherein the preamplifier circuit is configured to adjust one or more supply current operating parameters in response to a power mode control signal transmitted by the mode selection circuit (Buescher, e.g., col./line: 2/55-60).

Regarding claim 16,

the modified invention of Buescher and North does not wherein the mode selection circuit is incorporated within a post-amplifier circuit. However, lacking criticality, placement of parts is not considered patentable over the prior art.

4. Claims 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buescher et al. US006396351B1 (Buescher) in view of North US006118829A (North) and Jiang et al. US 20020076173A1 (Jiang).

Buescher disclosed an adjustable response preamplifier circuit, coupled to the opto-electronic transducer (Figure 2 (32)), and operable to amplify an electrical data signal generated by the opto-electronic transducer (photodiode not shown at terminal (34), e.g., col./line: 3/1-10); and a post-amplifier circuit (44). Buescher does not disclose a mode control signal connected to the preamplifier adjusted in response to a received data rate control signal. However, Buescher does disclose the need for the preamplifier to operate over varying bandwidths (e.g., col./line: 2/40-55). North disclosed a mode selection circuit that operates to adjust the bandwidth response and sensitivity of a communications receiver (e.g., col./line: 4/40-55). It would have been obvious to one of ordinary skill in the art at the time of invention to incorporate the North mode selection switch in the Buescher preamplifier circuit to limit bandwidth response to only that required to obtain good pulse fidelity so that less of the background noise spectrum is amplified and the input sensitivity can be kept correspondingly lower as disclosed by North (see col./line: 3/25-31). Buescher does not disclose integrating a connector along with these components on a substrate. Jiang disclosed integrating a preamplifier, postamplifier, receiver and connector on a common substrate (PCB), e.g., col./line: p1. paragraph 0002, p2. paragraph 0028, p3. paragraph 0030. It would have been obvious to one of ordinary skill in the art at the time of invention to integrate the components as did Jiang for the benefit improved connectivity in a small footprint as disclosed by Jiang see p1. paragraph 0004.



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*Conclusion*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David C. Payne whose telephone number is (703) 306-0004. The examiner can normally be reached on M-F, 7a-4p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Chan can be reached on (703) 305-4729. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Dcp

  
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